Lot 3—Fields 1 and 2

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot #3 Total Acres: 329 Field Number(s): 1,2 Acres: 125 Date: 8/05/03

Reported By: Earth Spirit Educational Services, Inc.

Principal Species	DBH* (inches)	Density (Heavy, Medium, Light)	Growth Rate**	Age Class (Even/Mult.)	Age	-	s (feet) 'Usable	Condition (Good, Fair, Poor)
· ·	· · ·				rige	•		
Sugar Maple	12-21	Medium - Heavy	20	Multiple		80	38	Good
American Beech	12-19.5	Medium - Heavy	19	Multiple		76	34	Good
Black Cherry	12-21	Medium - Heavy	21	Multiple		76	34	Good
White Ash	12-20	Medium	18	Multiple		80	35	Good
Eastern Hemlock	12-30	Medium	23	Multiple		10)5	Good
Yellow Birch	12-16.5	Light	18	Multiple		65	28	Fair
Basswood	12-16	Light	26	Multiple		72	36	Good

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

These fields represent mature mixed Hardwood Forests with a significant variety of hardwood species.

Aquatic Systems - includes both lentic (standing water) and lotic (flowing water) systems None

Fire Lane Status

None

^{**} Represents the most recent growth rings per inch from a core sample

Lot 3—Fields 1 and 2

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of medium - heavy density and is characterized by Sugar Maple (Acer saccharum), American Beech (Fagus grandifolia), Yellow Birch (Betula lutea), Black Cherry (Prunus serotina), White Ash (Fraxinus americana), Eastern Hemlock (Tsuga canadensis) and American Basswood (Tilia americana).

Subcanopy

The subcanopy is of heavy density and is represented by a variety of hardwood species.

Shrub Layer

The shrub layer is of light density and includes a variety of Brambles (Rubus spp.).

Herbaceous Layer

The herbaceous layer is of medium density and is dominated by a variety of ferns and clubmosses including Sensitive fern (Onoclea sensibilis), Lady fern (Athyrium Filix-femina), Evergreen Woodfern (Dryopteris intermedia), Interrupted fern (Osmunda claytoniana), New York fern (Thelypteris noveboracensis), Silvery Spleenwort (Athyrium thelypteroides), Christmas fern (Polystichum acrostichoides), Hayscented fern (Dennstaedtia punctilobula), Shining Clubmoss (Lycopodium lucidulum) and Tree Clubmoss (Lycopodium obscurum) and a variety of herbaceous plants.

Successional Status

These fields represent mature Hardwood Forests characterized by Sugar Maple (Acer saccharum), American Beech (Fagus grandifolia) and Yellow Birch (Betula lutea) along with Eastern Hemlock (Tsuga canadensis), a conifer associate. This system, designated as the climax vegetative community of this region, will continue to perpetuate itself barring natural disasters or man-made changes.

Botanical Concerns - includes both invasive and protected species

Invasive: None

<u>Protected:</u> All ferns and clubmosses listed under "Herbaceous Layer" except Sensitive fern (Onoclea sensibilis) and Hayscented fern (Dennsteadtia punctilobula).

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot # 3 Total Acres: 326 Field Number(s): 3 Acres: 2 Date: 8/06/03

Reported By: Earth Spirit Educational Services, Inc.

	DBH*	Density (Heavy,	Growth	Age Class		Heights (feet)	Condition
Principal Species	(inches)	Medium, Light)	Rate**	(Even/Mult.)	Age	Crown/Usable	(Good, Fair, Poor)
White Spruce	7-13	Heavy	18	Even	41	40	Poor
Sugar Maple	S/P	Light		Multiple			Poor

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

This field represents a White Spruce (Picea glauca) Plantation that is overcrowded, stunted and generally inaccessible. Sugar Maple (Acer saccharum) is sparsely scattered throughout the plantation and exists generally in "sapling" and "pole" size.

Aquatic Systems – includes both lentic (standing water) and lotic (flowing water) systems None

Fire Lane Status

None

^{**} Represents the most recent growth rings per inch from a core sample

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of heavy density and is characterized by an overcrowded and stunted plantation of White Spruce (Picea glauca) along with a light intrusion of Sugar Maple (Acer saccharum).

Subcanopy

The subcanopy is generally not present.

Shrub Layer

The shrub layer is generally not present.

Herbaceous Layer

The herbaceous layer is generally not present.

Successional Status

This field represents an overcrowded and stunted White Spruce (Picea glauca) Plantation with marginal hardwood intrusion into the canopy. This hardwood intrusion, coupled with the excessive competition for resources, will gradually cause the decline of this plantation and transition this system into a Hardwood Forest.

Botanical Concerns - includes both invasive and protected species

<u>Invasive:</u> None <u>Protected</u>: None

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot # 3 Total Acres: 326 Field Number(s): 4 Acres: 8 Date: 8/06/03

Reported By: Earth Spirit Educational Services, Inc.

	DBH*	Density (Heavy,	Growth	Age Class		Height	s (feet)	Condition
Principal Species	(inches)	Medium, Light)	Rate**	(Even/Mult.)	Age	Crown	/Usable	(Good, Fair, Poor)
Quaking Aspen	7-13	Medium - Heavy	16	Multiple		68	N/A	Poor
Red Maple	8-20	Medium		Multiple		72	28	Fair
Sugar Maple	S/P	Medium		Multiple				Poor
American Beech	S/P	Light		Multiple				Poor
Hophornbeam	Р	Light		Multiple				Poor

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

This field represents the remnants of a Pioneer Forest dominated by Quaking Aspen (Populus tremuloides). Secondary Hardwoods, in particular Red Maple (Acer rubrum), have become well established along with a moderate intrusion of young Climax species such as Sugar Maple (Acer saccharum) and American Beech (Fagus grandifolia).

Aquatic Systems

None

Fire Lane Status

None

^{**} Represents the most recent growth rings per inch from a core sample

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of light - medium density and is characterized by Quaking Aspen (Populus tremuloides) and Red Maple (Acer rubrum).

Subcanopy

The subcanopy is of heavy density and is represented by Red Maple (Acer rubrum), Sugar Maple (Acer saccharum), American Beech (Fagus grandifolia) and Hophornbeam (Ostrya virginiana).

Shrub Layer

The shrub layer is of light - medium density and is dominated by a variety of Brambles (Rubus spp.).

Herbaceous Layer

The herbaceous layer is of medium density and is dominated by ferns and scattered herbs.

Successional Status

This field represents a Pioneer Forest in the mid to late stages of transitioning into a Secondary Hardwood Forest.

Botanical Concerns - includes both invasive and protected species

Invasive: None

Protected: Evergreen Woodfern (Dryopteris intermedia).

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot #3 Total Acres: 326 Field Number(s): 5 Acres: 38 Date: 8/06/03

Reported By: Earth Spirit Educational Services, Inc.

Principal Species	DBH* (inches)	Density (Heavy, Medium, Light)	Growth Rate**	Age Class (Even/Mult.)	Age	_	(feet) 'Usable	Condition (Good, Fair, Poor)
White Pine	9-17	Medium	24	Even	69	6	5	Poor
White Ash	S/P/SL	Light - Medium		Multiple		72	30	Fair
Black Cherry	S/P/SL	Light - Medium		Multiple		70	28	Fair
Red Maple	S/P/SL	Light - Medium		Multiple		70	28	Fair
Sugar Maple	S/P	Light		Multiple				Poor
American Beech	S/P	Light		Multiple				Poor

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

This field represents a mature White Pine (Pinus strobus) Plantation with a moderate intrusion of hardwoods into the canopy. Plantation species are generally in poor condition due to wind and weevil damage, especially along the western border of the field. The subcanopy is well developed and is dominated by Secondary Hardwoods such as White Ash (Fraxinus americana), Black Cherry (Prunus serotina) and Red Maple (Acer rubrum).

Aquatic Systems – includes both lentic (standing water) and lotic (flowing water) systems This field contains a southeasterly flowing four season stream.

Fire Lane Status

The Fire Break in this field exists as a natural field border along Warner Gulf Road and is in need of periodic mowing in order to restrict shrub and tree growth.

^{**} Represents the most recent growth rings per inch from a core sample

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of medium density and is characterized by White Pine (Pinus strobus) along with White Ash (Fraxinus americana), Black Cherry (Prunus serotina) and Red Maple (Acer rubrum).

Subcanopy

The subcanopy is of medium density and is represented by a variety of hardwood species.

Shrub Layer

The shrub layer is of light density and includes Northern Arrowwood (Viburnum recognitum) and a variety of Brambles (Rubus spp.).

Herbaceous Layer

The herbaceous layer is of medium density and is dominated by a variety of ferns such as Evergreen Woodfern (Dryopteris intermedia), Lady fern (Athyrium Filix-femina) and New York fern (Thelypteris noveboracensis).

Successional Status

This field represents a mature White Pine (Pinus strobus) Plantation that is in the mid - late stages of transitioning into a Secondary Hardwood Forest characterized by White Ash (Fraximus americana), Black Cherry (Prunus serotina) and Red Maple (Acer rubrum). Eventually the Climax hardwood species of Sugar Maple (Acer saccharum) and American Beech (Fagus grandifolia) will out compete the Secondary Hardwoods and become dominant.

Botanical Concerns - includes both invasive and protected species

Invasive: None

Protected: All ferns listed under "Herbaceous Layer".

Lot 3—Fields 6, 7 and 8

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot # 3 Total Acres: 326 Field Number(s): 6,7,8 Acres: 132 Date: 08/07/03

Reported By: Earth Spirit Educational Services, Inc.

	DBH*	Density (Heavy,	Growth	Age Class	_	Heights (fee	•	Condition
Principal Species	(inches)	Medium, Light)	Rate**	(Even/Mult.)	Age	Crown/Usal	ole	(Good, Fair, Poor)
Red Pine	10-18	Heavy	20	Even	69	80		Good
Sugar Maple	S/P	Heavy		Multiple				Poor
White Ash	S/P	Medium		Multiple				Poor
Black Cherry	16-20	Medium		Multiple		78 3	36	Good
American Beech	S/P	Medium		Multiple				Poor
Red Oak	14-21	Light		Multiple		76 3	38	Good

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

These fields represent mature Red Pine (Pinus resinosa) Plantations with significant hardwood intrusions in all forest levels that have begun to diminish plantation species as a result of shading factors and resource competition.

Aquatic Systems - includes both lentic (standing water) and lotic (flowing water) systems These fields contain two southeasterly flowing four season streams.

Fire Lane Status

The Fire Breaks in these fields range in width from approximately 16-20 feet and all require moderate widening, clearing and significant pruning.

^{**} Represents the most recent growth rings per inch from a core sample

Lot 3—Fields 6, 7 and 8

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of medium density and is characterized by Red Pine (Pinus resinosa) along with Sugar Maple (Acer saccharum), White Ash (Fraxinus americana), Red Oak (Quercus rubra) and Black Cherry (Prunus serotina).

Subcanopy

The subcanopy is of medium - heavy density and is represented by a variety of hardwood species.

Shrub Layer

The shrub layer is of light density and includes various species of Dogwood (Cornus spp.), Red Elderberry (Sambucus pubens), Tartarian Honeysuckle (Lonicera tartarica) and Northern Arrowwood (Viburnum recognitum).

Herbaceous Layer

The herbaceous layer is of medium density and is dominated by a variety of ferns such as Sensitive fern (Onoclea sensibilis), Lady fern (Athyrium Filix-femina), Evergreen Woodfern (Dryopteris intermedia), Interrupted fern (Osmunda claytoniana) and New York fern (Thelypteris noveboracensis).

Successional Status

These fields represent mature Conifer Plantations that are in the mid - late stages of hardwood succession.

Botanical Concerns - includes both invasive and protected species

Invasive: Tartarian Honeysuckle (Lonicera tartarica)

<u>Protected:</u> All ferns listed under "Herbaceous Layer" except Sensitive fern (Onoclea sensibilis).

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot # 3 Total Acres: 326 Field Number(s): 9 Acres: 6 Date: 8/07/03

Reported By: Earth Spirit Educational Services, Inc.

	DBH*	Density (Heavy,	Growth	Age Class		Heights (feet)	Condition
Principal Species	(inches)	Medium, Light)	Rate**	(Even/Mult.)	Age	Crown/Usable	(Good, Fair, Poor)
Scotch Pine	8-14	Heavy	16	Even	69	73	Good
Sugar Maple	S/P	Medium		Multiple			Poor
American Beech	S/P	Medium		Multiple			Poor
White Ash	S/P	Medium		Multiple			Poor
Black Cherry	S/P	Medium		Multiple			Poor

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

This field represents a mature Scotch Pine (Pinus sylvestris) Plantation with significant hardwood intrusions throughout all forest levels. There also exists several acres of White Spruce (Picea glauca) and Larch (Larix spp.) along the northern border of this field with an average D.B.H. of 10-15 inches.

Aquatic Systems - includes both lentic (standing water) and lotic (flowing water) systems None

Fire Lane Status

The Fire Breaks in this field range in width from approximately 16-25 feet and all require moderate to heavy widening, clearing, pruning and in some cases, mowing.

^{**} Represents the most recent growth rings per inch from a core sample

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of medium density and is characterized by Scotch Pine (Pinus sylvestris) along with a variety of mixed hardwoods.

Subcanopy

The subcanopy is of medium density and is represented by a variety of hardwood species.

Shrub Layer

The shrub layer is of light density and includes a variety of Brambles (Rubus spp.).

Herbaceous Layer

The herbaceous layer is of medium density and is dominated by a variety of ferns such as Evergreen Woodfern (Dryopteris intermedia) and Spinulose Woodfern (Dryopteris spinulosa).

Successional Status

This field represents a mature Scotch Pine (Pinus sylvestris) Plantation transitioning into a young Hardwood Forest.

Botanical Concerns - includes both invasive and protected species

Invasive: None

Protected: All ferns listed under "Herbaceous Layer".

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot # 3 Total Acres: 326 Field Number(s): 10 Acres: 15 Date: 8/07/03

Reported By: Earth Spirit Educational Services, Inc.

Principal Species	DBH* (inches)	Density (Heavy, Medium, Light)	Growth Rate**	Age Class (Even/Mult.)	Age	Heights (feet) Crown/Usable	Condition (Good, Fair, Poor)
Red Pine	10-14	Heavy	15	Even	69	72	Good
White Pine	S/P	Medium		Even	69	70	Poor
White Ash	S/P	Medium		Multiple			Poor
American Beech	S/P	Medium		Multiple			Poor

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

This field represents a mature Red Pine (Pinus resinosa) Plantation that possesses an "open character" due to the available sunlight from Genesee Road, adjacent fields and fire breaks. As a result, the forest understory is generally dense and inaccessible.

Aquatic Systems – includes both lentic (standing water) and lotic (flowing water) systems None

Fire Lane Status

The Fire Breaks in this field are shared in common with Field Number 9. Please see Field Number 9 for descriptions and recommendations.

^{**} Represents the most recent growth rings per inch from a core sample

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of light - medium density and is characterized by Red Pine (Pinus resinosa) and White Pine (Pinus strobus).

Subcanopy

The subcanopy is of heavy density and is represented by Red Maple (Acer rubrum), White Ash (Fraxinus americana) and American Beech (Fagus grandifolia).

Shrub Layer

The shrub layer is of medium - heavy density and includes Choke Cherry (Prunus virginiana), Tartarian Honeysuckle (Lonicera tartarica) and Brambles (Rubus spp.). As a result of adjacent open terrain, "pockets" of field/shrub environments are scattered throughout this plantation.

Herbaceous Layer

The herbaceous layer is of medium - heavy density and is dominated by a variety of ferns such as Evergreen Woodfern (Dryopteris intermedia), Lady fern (Athyrium Filix-femina), New York fern (Thelypteris noveboracensis) and Marsh fern (Thelypteris palustris) along with a variety of herbaceous field plants.

Successional Status

This field represents a mature Red Pine (Pinus resinosa) Plantation with a generally open canopy and well developed understory layers. Excessive sunlight continues to encourage hardwood growth that is presently in the early - mid stages of transitioning this plantation into a young Hardwood Forest.

Botanical Concerns - includes both invasive and protected species

<u>Invasive:</u> Tartarian Honeysuckle (Lonicera tartarica) <u>Protected:</u> All ferns listed under "Herbaceous Layer".

Lot 3 Summary and Recommendations

FIELD WORKSHEET #3 WILDLIFE SUMMARY

Lot #3 offers an excellent variety of habitats for diverse populations of wildlife species. Field Numbers 3 and 5-10 offer extensive Conifer Plantations in various stages of hardwood succession. Field Number 4 represents a Pioneer Forest transitioning into a mature Secondary Hardwood Forest while Field Numbers 1 and 2 include mature Hardwood Forests. In addition to these environments, there also exists open field and shrubland "pockets" throughout the Lot as well as two southeasterly flowing four season streams.

During a period of three days, staff ecologists recorded a variety of wildlife observations focused upon actual sightings and other wildlife "signs". The following list represents a brief overview of those encounters focused upon Mammals, Birds and Reptiles/Amphibians.

Mammals

Whitetail Deer (Odocoileus virginianus) Gray Squirrel (Sciurus carolinensis) Red Squirrel (Tamiasciurus hudsonicus) Eastern Chipmunk (Tamias striatus) Eastern Cottontail (Sylvilagus floridanus) Red Fox (Vulpes fulva)
Raccoon (Procyon lotor)
Woodchuck (Marmota monax)
Deer Mouse (Peromyscus maniculatus)

*Black Bear (Ursus americanus)

Birds

Wild Turkey (Meleagris gallopavo)
Ovenbird (Seiurus aurocapillus)
Eastern Phoebe (Sayornis phoebe)
Redtail Hawk (Buteo jamaicensis)
Red-eyed Vireo (Vireo olivaceus)
House Wren (Troglodytes aedon)
Turkey Vulture (Cathartes aura)
American Goldfinch (Carduelis tristis)
Dark-eyed Junco (Junco hyemalis)
Song Sparrow (Melospiza melodia)
Common Crow (Corvus brachynhynchos)

Black-capped Chickadee (Parus atricapillus)
Pileated Woodpecker (Dryocopus pileatus)
Great Crested Flycatcher (Myiarchus crinitus)
Broad-winged Hawk (Buteo platypterus)
Indigo Bunting (Passerina cyanea)
Blue Jay (Cyanocitta cristata)
Gray Catbird (Dumetella carolinensis)
American Robin (Turdus migratorius)
Hermit Thrush (Catharus guttatus)
Field Sparrow (Spizella pusilla)

Reptiles/Amphibians

Spring Peeper (Hyla crucifer) Green Frog (Rana clamitans melanota)

Wood Frog (Rana sylvatica) American Toad (Bufo americanus)

^{*}Observed in the area prior to fieldwork.

FIELD WORKSHEET #4 RECOMMENDATIONS

The following recommendations for Lot #3 of the Erie County Forestry Management Plan are based upon field data collected by Earth Spirit Educational Services, Inc. in the areas of Forest Ecology, Wildlife Biology and general Ecology.

Field Numbers 1 and 2

Description - These fields represent mature mixed Hardwood Forests. At present, hiking/cross-country ski trails meander through these fields.

<u>Recommendations</u> - These fields represent extremely unique environments that enhance County Forest Lands in the areas of ecology, education and recreation and as such, should remain in their present state without treatment or long term management.

Field Number 3

<u>Description</u> - This field represents a White Spruce Plantation that is overcrowded, stunted and generally inaccessible.

<u>Recommendations</u> - This field should remain without treatment in order to allow this plantation to serve as food and cover for wildlife and as a dense buffer for adjacent fields.

Field Number 4

<u>Description</u> -This field represents a Pioneer Forest transitioning into a Secondary Hardwood Forest. <u>Recommendations</u> - This field should remain without treatment in order to promote habitat diversity for wildlife, education and recreation.

Field Number 5

<u>Description</u> - This field represents a mature White Pine Plantation that is in the mid - late stages of hardwood succession.

<u>Recommendations</u> - This field should remain without treatment in order to serve as a windbreak and buffer area for adjacent fields as well as for erosion control and wildlife habitat.

Field Numbers 6, 7 and 8

<u>Description</u> - These fields represent mature Red Pine Plantations that are in the mid - late stages of hardwood succession.

<u>Recommendations</u> - These fields, as a result of hardwood intrusions and over competition, are experiencing extremely slow growth and general decline. It is recommended then, that these Red Pine Plantations (D.B.H. of 10-18 inches) be actively managed. These fields also contain mature Red Oak and Black Cherry that should remain without treatment in order to serve as "seed trees" for hardwood regeneration and to promote habitat diversity for wildlife.

Field Number 9

<u>Description</u> - This field represents a mature Scotch Pine Plantation presently transitioning into a Hardwood Forest.

<u>Recommendations</u> - This field should remain without treatment in order to allow this plantation to enhance habitat diversity, control soil erosion and provide food and cover for wildlife.

Field Number 10

<u>Description</u> - This field represents a mature Red Pine Plantation generally exhibiting an "open character" due to available light from adjacent environments.

<u>Recommendations</u> - This field should remain without treatment in order to allow this plantation to enhance habitat diversity, control soil erosion, provide food and cover for wildlife and act as a buffer along Genesee Road.

Lot 3 Soils, Waterways and Topography

Soils

Lot 3 is dominated by gently sloping, somewhat poorly drained Volusia Channery Silt Loam (VpB), 3-8% slopes, and poorly drained Chippewa Silt Loam (Cn). The potentially highly erodible Volusia soils are moderately permeable and have a fragipan at a depth of 15 to 50 inches. The Chippewa soils are hydric, moderately permeable and have a fragipan at a depth of 13 to 36 inches. Portions of Mardin Channery Silt Loam (MdB and MdC), 3-15% slopes are also present. These soils are highly erodible where steep, and moderately permeable. Small areas of highly erodible, moderately well drained Danley Silt Loam (DaC) and Langford Channery Silt Loam, Silty Substratum (LgC), 8-15% slopes, and potentially highly erodible, somewhat poorly drained Darien Silt Loam (DbB), 3-8% slopes, also occur on Lot 3 in low areas and along a small stream bed.

Waterways and Topography

Lot 3 is gently sloping for most of the acreage, with the exception of somewhat steep areas adjacent to an unnamed stream and two intermittent stream channels. Although access to these waterways is good, the channels are all tributary to Cattaraugus Creek and may potentially contribute sediment or other pollutants to the Creek if riparian forest buffers are not maintained along these waterways, and soil disturbing activities should be conducted after soils have frozen, especially in areas of wetter soils. Fish habitat in Cattaraugus Creek is stressed, primarily due to streambank erosion, with secondary pollutants of resource extraction, agriculture, road bank erosion and construction.

Lot 3 Forest Stewardship Recommendations

Stand A (Fields 1, 2)

This is an uneven-aged stand of northern hardwoods containing scattered mature sugar maples, beech, hemlock, yellow birch, white ash and black cherry. Many have considerable defects and disease and their growth rate is very slow. This stand should be managed for light, passive outdoor recreation. Hazardous trees near trails should be felled or the trail rerouted. Recheck in 10 years.

Stand B (Field 3)

This is a 40 year old white spruce plantation that has had no intermediate silvicultural treatments. This small stand should be left to slowly become an evergreen midstory under native hardwoods.

Stand C (Field 4)

This is an even-aged stand of pole-sized northern hardwoods, including maples, ash, cherry and aspen. There are small plantings of swamp white oak and northern white cedar. This pole stand is at the optimal age to thin to favor future crop trees for species diversity and to develop large crowned trees. Trees to remove should be diseased, high risk or multiple stemmed. No cutting should be done in the oaks or cedars. Recheck in 10 years.

Stand D (Field 5)

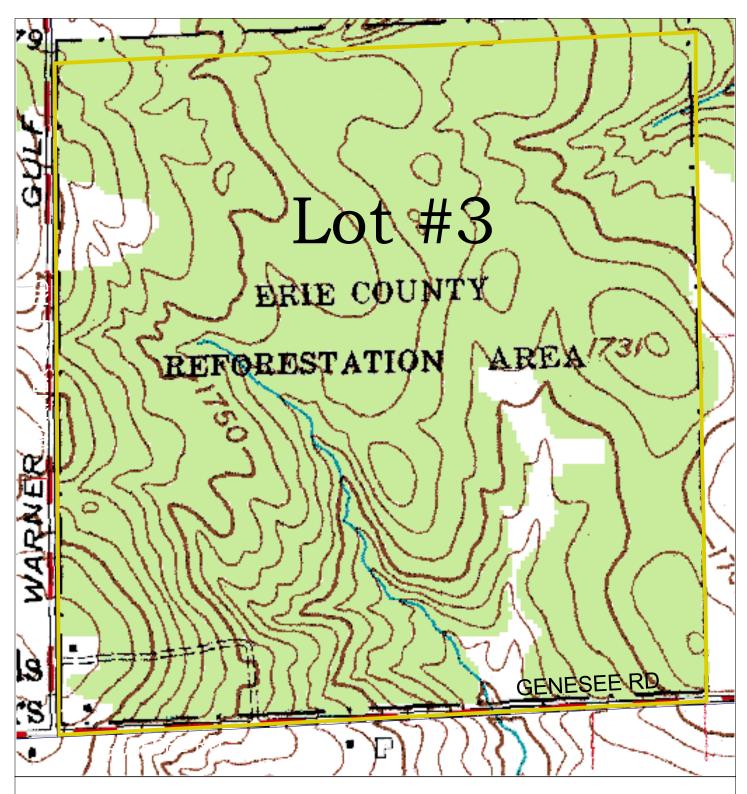
This is a mature plantation of white pine with poor form due to weeviling and poor soil drainage. If some pines are merchantable, deaden the worst formed pines to release hardwoods. Allow about 10 to 20% of the pines residual for wildlife and species diversity. Leave at least 100-200 feet of a no-cut buffer along the road. Recheck in 10 years.

Stand E (Fields 6-10)

This is a area of mature conifer plantations including red, white and Scots pine and larch with scattered hardwoods. The mature pines, along with any hardwoods above 20" diameter or that are high risk, should be scheduled for harvesting to complete the transition to native hardwoods. Quality small sawtimber and pole-sized hardwoods, especially red oak, should be residuals. Leave at least 100-200 feet of a no-cut buffer along the road and 50-100 feet along the property edge. Since honeysuckle shrubs can cause severe hardwood seedling competition, they should be removed or treated with herbicides. Recheck in 10 years.

General

Best Management Practices (BMPs) for erosion control should be followed on the fire lanes used as vehicle trails. Some erosion is occurring on the long slopes. Reference the BMP Field Guide pages 54 - 65.



Erie County Forest Management Plan

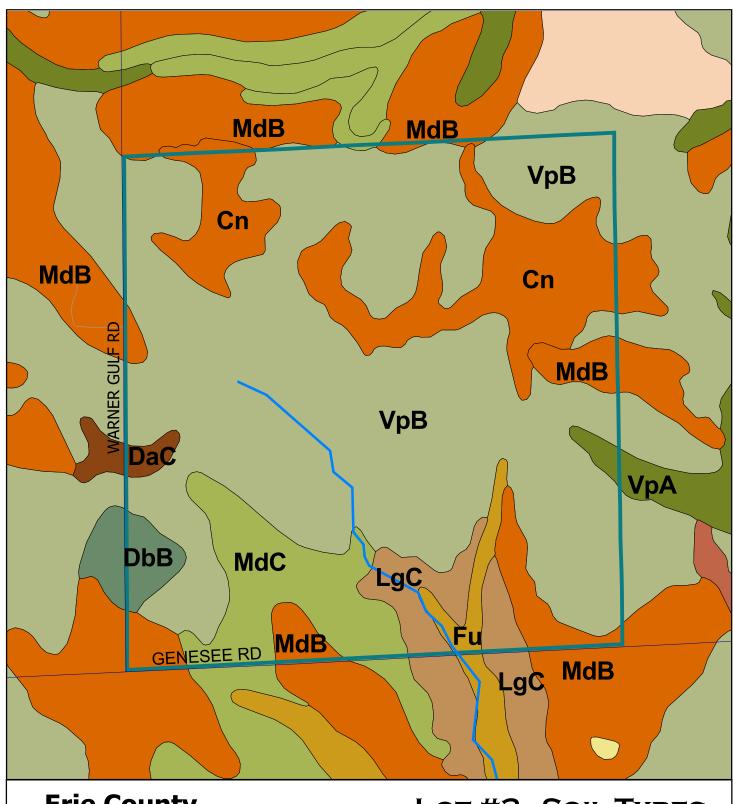
USGS TOPOGRAPHIC QUADRANGLE



Map Prepared By: Erie County Soil and Water Conservation District

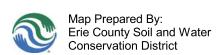


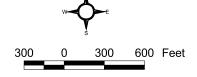
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Erie County Forest Management Plan

LOT #3 - SOIL TYPES





Erie County Soil and Water Conservation District & USDA Natural Resources Conservation Service

Brief Soil Descriptions – Lot 3

For further information refer to the Soil Survey of Erie County, New York.

Symbol

Name / Description

Cn Chippewa Silt Loam

Deep, nearly level, poorly drained, medium lime, silt loam soil formed in fine loamy glacial till. It has a very firm fragipan at a depth of 13 to 36 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and very slow in the fragipan and below. HYDRIC SOIL, CAPABILITY CLASS-IVW, NYS SOIL GROUP-7b, K=.32, T=3

DaC Danley Silt Loam, 8 to 15 Percent Slopes

Deep, sloping, moderately well drained, high lime, silt loam soil formed in fine loamy glacial till. The available water capacity is moderate to high. Permeability is moderately slow in the subsoil and slow in the substratum. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIe, NYS SOIL GROUP-5b, K=.37, T=3

DbB Darien Silt Loam, 3 to 8 Percent Slopes

Deep, gently sloping, somewhat poorly drained, high lime, silt loam soil formed in fine loamy glacial till. The available water capacity is moderate to high. Permeability is generally slow. PRIME FARMLAND (WHERE DRAINED), POTENTIALLY HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIW, NYS SOIL GROUP-5b, K=.37, T=3

Fu Fluvaquents and Udifluvents, Frequently Flooded

Moderately deep to deep, nearly level, well drained to poorly drained, high to low lime, variable soils formed in recent stream deposits. The available water capacity and permeability are variable. No K or T values are assigned. HYDRIC SOIL, CAPABILITY CLASS-Vw, NYS SOIL GROUP-9

LgC Langford Channery Silt Loam, Silty Substratum, 8 to 15 Percent Slopes

Deep, sloping, moderately well drained and well drained, medium lime, channery silt loam soil formed in glacial till deposits underlain by silty lake sediments. There is a firm, dense fragipan 15 to 20 inches deep which is approximately 24 inches thick. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow below the fragipan. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIe, NYS SOIL GROUP-6b, K=.20, T=3

MdB Mardin Channery Silt Loam, 3 to 8 Percent Slopes

Deep, gently sloping, moderately well drained and well drained, low lime, channery silt loam soil formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 16 to 50 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in the fragipan and substratum. POTENTIALLY HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIW, NYS SOIL GROUP-4b, K=.24, T=3

MdC Mardin Channery Silt Loam, 8 to 15 Percent Slopes

Deep, sloping, moderately well drained and well drained, low lime, channery silt loam soil formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 16 to 50 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in the fragipan and substratum. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIe, NYS SOIL GROUP-6b, K=.24, T=3

VpB Volusia Channery Silt Loam, 3 to 8 Percent Slopes

Deep, gently sloping, somewhat poorly drained, low lime, channery silt loam soil formed in fine loamy glacial till. It has a very firm fragipan at a depth of 15 to 50 inches. The available water capacity is moderate to low. Permeability is generally moderate above the fragipan and slow to very slow in the fragipan. POTENTIALLY HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIW, NYS SOIL GROUP-6b, K=.24, T=3

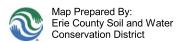


1965 CONSERVATION PLAN MAP

Erie County Forest Management Plan

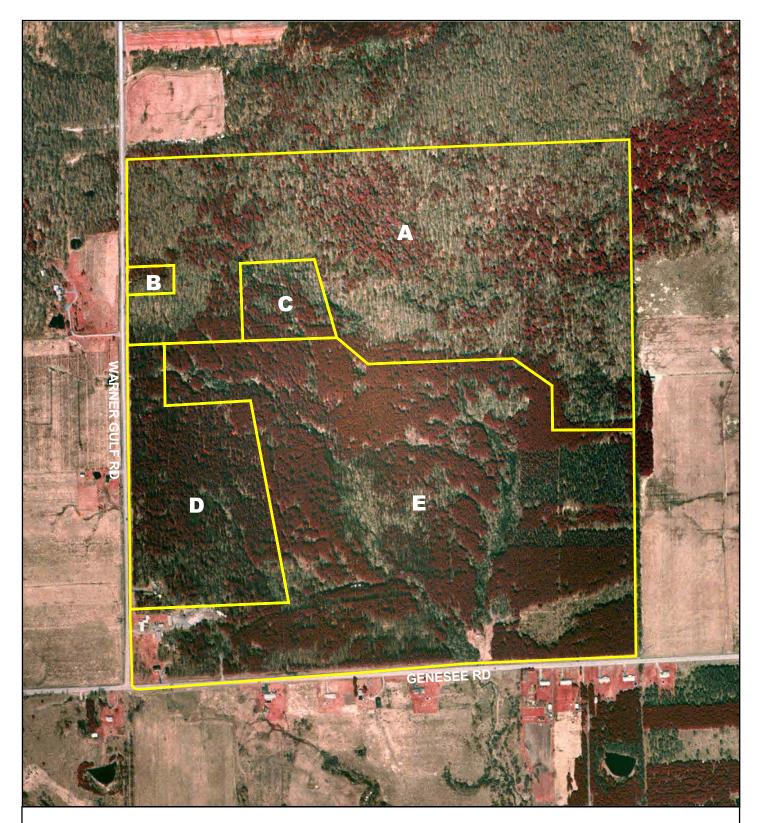
Lot#3





* Basemap Source: 1995 Color IR Orthophotography

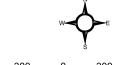




2003 STEWARDSHIP RECOMMENDATION MAP

Erie County Forest Management Plan

Lot#3



600 Feet

